



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

23666

7590

04/07/2009

QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER

PEACHES, RANDY

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 04/07/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,783	02/05/2004	Hai Qu	030504	7908

TITLE OF INVENTION: TRANSPARENT BROADCAST SERVICES FOR A MULTIMODE WIRELESS DEVICE

APPL. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	07/07/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax **(571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

23696 7590 04/07/2009

QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/773,783 02/05/2004

Hai Qu

030504

7908

TITLE OF INVENTION: TRANSPARENT BROADCAST SERVICES FOR A MULTIMODE WIRELESS DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	07/07/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
PEACHES, RANDY	2617	455-072000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,783	02/05/2004	Hai Qu	030504	7908
23696	7590	04/07/2009	EXAMINER	
QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			PEACHES, RANDY	
			ART UNIT	PAPER NUMBER

2617

DATE MAILED: 04/07/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 498 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 498 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability**Application No.**

10/773,783

Examiner

RANDY PEACHES

Applicant(s)

QU ET AL.

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE dated 3/19/2009.
2. ☒ The allowed claim(s) is/are claims 1-28.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 3/19/2009
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION
REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

The Applicant's invention relates to the following:

Regarding **claim 1**, the Applicant claims a wireless device comprising:

- a first module operable to process a first broadcast message for a first wireless communication system in accordance with parameters of the first broadcast message;
- a second module operable to process a second broadcast message for a second wireless communication system in accordance with parameters of the second broadcast message, the first and second broadcast messages having different formats; and
- a third module operable to receive and map the parameters of the first and second broadcast messages to *corresponding parameters in a set of parameters defined for broadcast services, wherein the set of parameters is a composite set of parameters of the first and second broadcast messages.*

Regarding **claim 5**, the Applicant claims a wireless device comprising:

- a first module operable to process a first broadcast message for a first wireless communication system in accordance with parameters of the first broadcast message;

- a second module operable to process a second broadcast message for a second wireless communication system in accordance with parameters of the second broadcast message;
- a third module operable to map the parameters of the first and second broadcast messages to *corresponding parameters in a set of parameters defined for broadcast services*; and
- a fourth module operable to display the first and second broadcast messages based on the parameters in the set, wherein *the fourth module is further operative to provide the parameters in the set for user review and selection instead of the parameters of the first and second broadcast messages*.

Regarding **claim 5**, the Applicant claims a wireless device comprising:

- a first module operable to process a first broadcast message for a first wireless communication system in accordance with parameters of the first broadcast message;
- a second module operable to process a second broadcast message for a second wireless communication system in accordance with parameters of the second broadcast message; and
- a third module *operable to map the parameters of the first and second broadcast messages to corresponding parameters in a set of parameters defined for broadcast services*, wherein each of the parameters in the set is associated with a mapped parameter for the first broadcast message, a mapped parameter for

the second broadcast message, or a mapped parameter for both the first and second broadcast messages.

Regarding **claim 10**, the Applicant claims a wireless device comprising:

- a first module operable to process a first broadcast message for a first wireless communication system in accordance with parameters of the first broadcast message;
- a second module operable to process a second broadcast message for a second wireless communication system in accordance with parameters of the second broadcast message; and
- a third module *operable to map the parameters of the first and second broadcast messages to corresponding parameters in a set of parameters defined for broadcast services*, wherein the set includes an encoding parameter indicative of character sets used for broadcast messages received from the first and second networks and a language parameter indicative of languages used for the broadcast messages.

Regarding **claim 11**, the Applicant claims a wireless device comprising:

- a first module operable to process a first broadcast message for a first wireless communication system in accordance with parameters of the first broadcast message;
- a second module operable to process a second broadcast message for a second wireless communication system in accordance with parameters of the second broadcast message; and

- a third module *operable to map the parameters of the first and second broadcast messages to corresponding parameters in a set of parameters defined for broadcast services*, wherein the set includes a display mode parameter indicative of display options for broadcast messages received from the first and second networks and a message replacement parameter used to replace old broadcast messages with new broadcast messages.

Regarding **claim 14**, the Applicant claims a method of receiving broadcast services from a plurality of wireless communication systems, comprising:

- processing a first broadcast message for a first wireless communication system in accordance with parameters of the first broadcast message;
- processing a second broadcast message for a second wireless communication system in accordance with parameters of the second broadcast message, the first and second broadcast messages having different formats; and
- receiving and *mapping the parameters of the first and second broadcast messages to corresponding parameters in a set of parameters defined for broadcast services, wherein the set of parameters is a composite set of parameters of the first and second broadcast messages.*

Regarding **claim 18**, the Applicant claims a method of receiving broadcast services from a plurality of wireless communication systems, comprising:

- processing a first broadcast message for a first wireless communication system in accordance with parameters of the first broadcast message;

- processing a second broadcast message for a second wireless communication system in accordance with parameters of the second broadcast message;
- receiving and mapping the parameters of the first and second broadcast messages *to corresponding parameters in a set of parameters defined for broadcast services; and*
- providing parameters in the set for user review and selection instead of the parameters of the first and second broadcast messages, *wherein the set of parameters is a composite set of parameters of the first and second broadcast messages.*

Regarding **claim 19**, the Applicant claims an apparatus comprising:

- means for processing a first broadcast message for a first wireless communication system in accordance with parameters of the first broadcast message;
- means for processing a second broadcast message for a second wireless communication system in accordance with parameters of the second broadcast message, the first and second broadcast messages having different formats; and
- means for receiving and mapping the parameters of the first and second broadcast messages to corresponding parameters in a set of parameters defined for broadcast services, *wherein the set of parameters is a composite set of parameters of the first and second broadcast messages.*

Regarding **claim 22**, the Applicant claims a processor readable media for storing instructions in a wireless device, comprising:

- a module to process a first broadcast message for a first wireless communication system in accordance with parameters of the first broadcast message;
- a module to process a second broadcast message for a second wireless communication system in accordance with parameters of the second broadcast message, the first and second broadcast messages having different formats; and
- a module to receive and map the parameters of the first and second broadcast messages to corresponding parameters in a set of parameters defined for broadcast services, *wherein the set of parameters is a composite set of parameters of the first and second broadcast messages.*

Regarding **claim 23**, the Applicant claims a method of receiving broadcast services in a wireless communication system, comprising:

- *defining a composite set of broadcast message parameters including at least a first set and a second set of parameters corresponding to first and second broadcast services;*
- respectively associating the first set and the second set with first and second active time periods indicative of when broadcast messages for the first and second broadcast services are to be received; and
- receiving broadcast messages from at least one of the first and second broadcast services in the respective active time period.

Regarding **claim 25**, the Applicant claims a method of receiving broadcast services in a wireless communication system, comprising:

- defining a first set of at least one broadcast service supported by the system;

- associating the first set with a first active time period indicative of when broadcast messages for the at least one broadcast service in the first set are to be received; and
- *receiving broadcast messages for the at least one broadcast service in the first set during the first active time period, wherein each of the at least one broadcast service in the first set corresponds to a different combination of service category and language for broadcast messages in the system.*

Regarding **claim 27**, the Applicant claims a wireless device in a wireless communication system, comprising:

- a controller operative to store a *composite set of broadcast service parameters including at least a first set and a second set of parameters corresponding to first and second broadcast services* and to respectively associate the first set and the second set with first and second active time periods indicative of when broadcast messages for the first and second broadcast services are to be received; and
- a processing unit operative to process received broadcast messages from at least one of the first and second broadcast services in the respective active time period.

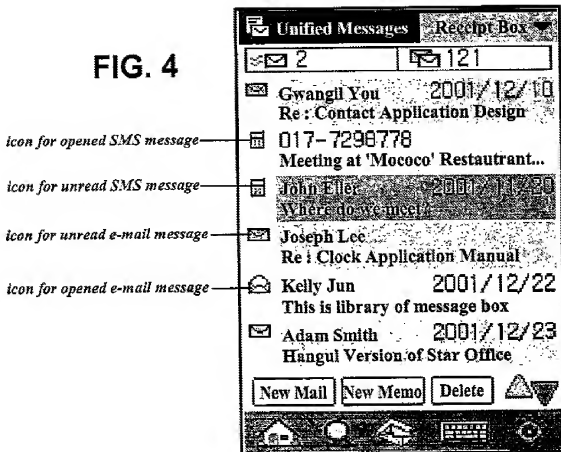
The closest prior arts relevant to the claimed invention cited by the Examiner is ***Babbar et al. (U.S. Patent Publication Number 20040116140 A1)***, ***Kang et al. (U.S. Patent Publication Number 20020152220)***

Babbar et al. discloses a transformation of first and second signals by first and second modules such that the signals arriving at a third module are transformed and

different from the first and second signals received at the first and second modules. Babbar's referenced DRIF performs both physical and logical transformation of the message (signal/parameter) received. The physical transformation is the process of taking a RF signal and transforming it physically to be displayed, since Babbar discloses where the first and second message (signal/parameter) are physically transformed by the DRIF and presented to the interface devices, such as a laptop computer, PDA, etc. Lastly, the MCM request configuration information and further routes (or maps) the messages directly to the connected host that is identified by the unique configuration in the message.

Kang et al. discloses displaying several type of message all at one time in a single display of an electronic device without requiring the user to consider the message type. Once the message is written and ready **for transmission**, the user is given the option, if needed, to convert the message based on the information written in a distinguishing field. The conversion unit only converts the written message if the messages' original format exceed the message requirements, for example. Figure 4 details how the messages re displayed according to the prior art disclosure.

FIG. 4



Although Babbar et al. and Kang et al. are considered to constitute to the state of the claimed invention; however, in contrast with comparable differences, the instant Application is considered novel over the prior art because the instant application claims three important factors:

- 1.) First broadcast message parameters
- 2.) Second broadcast message parameters
- 3.) Set (composite) of broadcast parameters, which is configured based on the first and second broadcast message

The instant application discloses a first and second broadcast message which is used to create a *composite set of broadcast message parameters*. These broadcast messages are originated via broadcast services for GSM, UMTS and CDMA. In the instant application, the Applicant has denoted that the broadcast message will be CBS message for GSM and UMTS and SMS message for CDMA. Each message contains its own set of parameters which are used to configure a "composite set" of parameters that represent together the parameters from each of the broadcasted message. This technique will provide transparent broadcast services in a multi-mode wireless device. In order to implement such, the Applicant has derived a method of facilitating a composite set of parameter associated with each of the broadcast messages as such:

Table 1 - Composite Set of Parameters

Composite Set Parameters	CBS Parameters (GSM & UMTS)	Broadcast SMS Parameters (CDMA)
Message Type	CBS (GSM & UMTS) CBS41 (UMTS)	CBS41
Service ID	Message Identifier	Service Category, Language
Encoding	Data Coding Scheme	Msg_Encoding & Message_Type
Language	Data Coding Scheme	Language Indicator
Message Class	Data Coding Scheme	N/A

Message Concatenation	Page Parameter	Header_Ind & User Data Header
Geographic Scope	Geographic Scope	Zone-ID
Display Mode	Geographic Scope	Message Display Mode
Message Replacement	Message Code & Update Number	Message ID
User Data Header	Data Coding Scheme & Content of Message/ CB Data	Header_Ind & User Data
Channel Guide	Index Message	N/A

Once the device has detected the type of incoming message, the system maps the contents of the message (parameters) to the corresponding parameters of the composite set. The user is given the opportunity to be presented the "applicable" parameters of the *composite set* for review, selection and other purposes. The user is further presented with a list of available options for the parameters for all supported networks. The prior art fails to teach, in addition, of when receiving a message of a different format, the device fails to support, transparently converting message according to a composite of the message type.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RANDY PEACHES whose telephone number is (571) 272-7914. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Randy Peaches/
Examiner, Art Unit 2617

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617